

# Notice of Allowability

Application No.

10/691,223

Examiner

Jeffrey R. Snay

Applicant(s)

CAREN ET AL.

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the telephone interview of 09-26-04.
2. ☒ The allowed claim(s) is/are 22-41.
3. ☒ The drawings filed on 21 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gordon Stewart on 09-26-04.

The application has been amended as follows:

In claim 30, line 1, "method" has been changed to --apparatus--.

In claim 31, line 1, "method" has been changed to --apparatus--.

In claim 35, line 2, " $\mu^2$ " has been changed to -- $\mu\text{m}^2$ --.

In claim 36, line 1, "method" has been deleted.

In the specification at page 10, ultimate line, "Fig. 9" has been changed to --Fig. 5B-- and "Fig. 10" has been changed to --Fig. 5C--. This amendment corrects an obvious typographical error that was previously identified and corrected in the parent application.

The foregoing amendments have been agreed upon and entered in order to correct minor informalities in the language of the claims.

2. The following amendment has been made to the specification by informal examiner's amendment:

In the specification at page 1, line 1, " This is a Divisional of copending application Serial No. 09/703,303, filed on 10/31/2000, the entire disclosure of which is incorporated herein by reference." has been changed to

-- This is a Divisional of copending application Serial No. 09/703,303, filed on 10/31/2000, now U.S. Patent 6,656,740, the entire disclosure of which is incorporated herein by reference.--

***Allowable Subject Matter***

3. Claims 21-41 are allowed.
4. The following is an examiner's statement of reasons for allowance: The prior art fails to teach or fairly suggest the presently recited apparatus and computer program implementation product in which a pressure source is operated to apply a varying prime pressure in a drop dispenser sufficient to move fluid therein but insufficient to dispense fluid from the apparatus. While the prior art recognizes the application of pressure to move fluid in a drop dispenser, such application of pressure is either sufficient to dispense or in any event fails to teach application of a varying pressure.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hayes et al ('745) disclose a chemical reagent drop dispenser which includes priming the dispenser tube by applying a positive pressure sufficient to load the dispensing tip but insufficient to cause a drop to be dispensed from the orifice (column 7, lines 23-29). Hayes et al fail to suggest application of a varying pressure that is applied such that fluid motion is variably imparted within the dispensing chamber. Silverbrook ('457) discloses a similar single positive pressure priming method in an ink jet printer (column 12, lines 20-37). Papen et al disclose a micro-dispensing device which includes a pressure measurement capability during a dispensing step in order to quantify the volume of the dispensed droplet. The remaining prior art cited related generally to the field of droplet dispensing, and particularly such dispensing for the purpose of forming microarrays of biological material.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Snay whose telephone number is (571) 272-1264. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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jrs